

## **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/550,518  
Source: Pt/10  
Date Processed by STIC: 10/5/05

***ENTERED***



PCT

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/550,518

DATE: 10/05/2005

TIME: 16:22:40

Input Set : A:\sequence listing ascii.txt  
 Output Set: N:\CRF4\10052005\J550518.raw

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3 <110> APPLICANT: Cytos Biotechnology AG
4     Maurer, Patrik
5     Bachmann, Martin
6     Proba, Karl
7     Meijerink, Edwin
8     Manolova, Vania
10    <120> TITLE OF INVENTION: Packaging of Immunostimulatory Substances into Virus-like
11        Particles: Method of Preparation and Use
13    <130> FILE REFERENCE: 1700.0630000
C--> 15 <140> CURRENT APPLICATION NUMBER: US/10/550,518
C--> 15 <141> CURRENT FILING DATE: 2005-09-23
15 <150> PRIOR APPLICATION NUMBER: 60/457,348
16 <151> PRIOR FILING DATE: 2003-03-26
18 <160> NUMBER OF SEQ ID NOS: 111
20 <170> SOFTWARE: PatentIn version 3.2
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 10
24 <212> TYPE: DNA
25 <213> ORGANISM: Artificial sequence
27 <220> FEATURE:
28 <223> OTHER INFORMATION: oligonucleotide ISS
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36 <212> TYPE: DNA
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40 <223> OTHER INFORMATION: oligonucleotide G3-6
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49 <213> ORGANISM: Artificial Sequence
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52 <223> OTHER INFORMATION: oligonucleotide G4-6
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58 <210> SEQ ID NO: 4
59 <211> LENGTH: 21
60 <212> TYPE: DNA
61 <213> ORGANISM: Artificial sequence

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63 <220> FEATURE:
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72 <212> TYPE: DNA
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82 <210> SEQ ID NO: 6
83 <211> LENGTH: 24
84 <212> TYPE: DNA
85 <213> ORGANISM: Artificial sequence
87 <220> FEATURE:
88 <223> OTHER INFORMATION: oligonucleotide G7-7
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94 <210> SEQ ID NO: 7
95 <211> LENGTH: 26
96 <212> TYPE: DNA
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108 <212> TYPE: DNA
109 <213> ORGANISM: Artificial Sequence
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130 <210> SEQ ID NO: 10
131 <211> LENGTH: 132
132 <212> TYPE: PRT
133 <213> ORGANISM: Bacteriophage Q-beta
135 <400> SEQUENCE: 10

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137 Ala Lys Leu Glu Thr Val Thr Leu Gly Asn Ile Gly Lys Asp Gly Lys  
 138 1 5 10 15  
 141 Gln Thr Leu Val Leu Asn Pro Arg Gly Val Asn Pro Thr Asn Gly Val  
 142 20 25 30  
 145 Ala Ser Leu Ser Gln Ala Gly Ala Val Pro Ala Leu Glu Lys Arg Val  
 146 35 40 45  
 149 Thr Val Ser Val Ser Gln Pro Ser Arg Asn Arg Lys Asn Tyr Lys Val  
 150 50 55 60  
 153 Gln Val Lys Ile Gln Asn Pro Thr Ala Cys Thr Ala Asn Gly Ser Cys  
 154 65 70 75 80  
 157 Asp Pro Ser Val Thr Arg Gln Ala Tyr Ala Asp Val Thr Phe Ser Phe  
 158 85 90 95  
 161 Thr Gln Tyr Ser Thr Asp Glu Glu Arg Ala Phe Val Arg Thr Glu Leu  
 162 100 105 110  
 165 Ala Ala Leu Leu Ala Ser Pro Leu Leu Ile Asp Ala Ile Asp Gln Leu  
 166 115 120 125  
 169 Asn Pro Ala Tyr  
 170 130  
 173 <210> SEQ ID NO: 11  
 174 <211> LENGTH: 328  
 175 <212> TYPE: PRT  
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 184 Lys Gln Thr Leu Val Leu Asn Pro Arg Gly Val Asn Pro Thr Asn Gly  
 185 20 25 30  
 188 Val Ala Ser Leu Ser Gln Ala Gly Ala Val Pro Ala Leu Glu Lys Arg  
 189 35 40 45  
 192 Val Thr Val Ser Val Ser Gln Pro Ser Arg Asn Arg Lys Asn Tyr Lys  
 193 50 55 60  
 196 Val Gln Val Lys Ile Gln Asn Pro Thr Ala Cys Thr Ala Asn Gly Ser  
 197 65 70 75 80  
 200 Cys Asp Pro Ser Val Thr Arg Gln Ala Tyr Ala Asp Val Thr Phe Ser  
 201 85 90 95  
 204 Phe Thr Gln Tyr Ser Thr Asp Glu Glu Arg Ala Phe Val Arg Thr Glu  
 205 100 105 110  
 208 Leu Ala Ala Leu Leu Ala Ser Pro Leu Leu Ile Asp Ala Ile Asp Gln  
 209 115 120 125  
 212 Leu Asn Pro Ala Tyr Trp Leu Leu Ile Ala Gly Gly Ser Gly Ser  
 213 130 135 140  
 216 Lys Pro Asp Pro Val Ile Pro Asp Pro Pro Ile Asp Pro Pro Pro Gly  
 217 145 150 155 160  
 220 Thr Gly Lys Tyr Thr Cys Pro Phe Ala Ile Trp Ser Leu Glu Glu Val  
 221 165 170 175  
 224 Tyr Glu Pro Pro Thr Lys Asn Arg Pro Trp Pro Ile Tyr Asn Ala Val  
 225 180 185 190  
 228 Glu Leu Gln Pro Arg Glu Phe Asp Val Ala Leu Lys Asp Leu Leu Gly  
 229 195 200 205

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Input Set : A:\sequence listing ascii.txt  
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232 Asn Thr Lys Trp Arg Asp Trp Asp Ser Arg Leu Ser Tyr Thr Thr Phe  
 233 210 215 220  
 236 Arg Gly Cys Arg Gly Asn Gly Tyr Ile Asp Leu Asp Ala Thr Tyr Leu  
 237 225 230 235 240  
 240 Ala Thr Asp Gln Ala Met Arg Asp Gln Lys Tyr Asp Ile Arg Glu Gly  
 241 245 250 255  
 244 Lys Lys Pro Gly Ala Phe Gly Asn Ile Glu Arg Phe Ile Tyr Leu Lys  
 245 260 265 270  
 248 Ser Ile Asn Ala Tyr Cys Ser Leu Ser Asp Ile Ala Ala Tyr His Ala  
 249 275 280 285  
 252 Asp Gly Val Ile Val Gly Phe Trp Arg Asp Pro Ser Ser Gly Gly Ala  
 253 290 295 300  
 256 Ile Pro Phe Asp Phe Thr Lys Phe Asp Lys Thr Lys Cys Pro Ile Gln  
 257 305 310 315 320  
 260 Ala Val Ile Val Val Pro Arg Ala  
 261 325  
 264 <210> SEQ ID NO: 12  
 265 <211> LENGTH: 362  
 266 <212> TYPE: PRT  
 267 <213> ORGANISM: BK virus  
 269 <400> SEQUENCE: 12  
 271 Met Ala Pro Thr Lys Arg Lys Gly Glu Cys Pro Gly Ala Ala Pro Lys  
 272 1 5 10 15  
 275 Lys Pro Lys Glu Pro Val Gln Val Pro Lys Leu Leu Ile Lys Gly Gly  
 276 20 25 30  
 279 Val Glu Val Leu Glu Val Lys Thr Gly Val Asp Ala Ile Thr Glu Val  
 280 35 40 45  
 283 Glu Cys Phe Leu Asn Pro Glu Met Gly Asp Pro Asp Asp Asn Leu Arg  
 284 50 55 60  
 287 Gly Tyr Ser Gln His Leu Ser Ala Glu Asn Ala Phe Glu Ser Asp Ser  
 288 65 70 75 80  
 291 Pro Asp Arg Lys Met Leu Pro Cys Tyr Ser Thr Ala Arg Ile Pro Leu  
 292 85 90 95  
 295 Pro Asn Leu Asn Glu Asp Leu Thr Cys Gly Asn Leu Leu Met Trp Glu  
 296 100 105 110  
 299 Ala Val Thr Val Lys Thr Glu Val Ile Gly Ile Thr Ser Met Leu Asn  
 300 115 120 125  
 303 Leu His Ala Gly Ser Gln Lys Val His Glu Asn Gly Gly Lys Pro  
 304 130 135 140  
 307 Val Gln Gly Ser Asn Phe His Phe Phe Ala Val Gly Gly Asp Pro Leu  
 308 145 150 155 160  
 311 Glu Met Gln Gly Val Leu Met Asn Tyr Arg Thr Lys Tyr Pro Gln Gly  
 312 165 170 175  
 315 Thr Ile Thr Pro Lys Asn Pro Thr Ala Gln Ser Gln Val Met Asn Thr  
 316 180 185 190  
 319 Asp His Lys Ala Tyr Leu Asp Lys Asn Asn Ala Tyr Pro Val Glu Cys  
 320 195 200 205  
 323 Trp Ile Pro Asp Pro Ser Arg Asn Glu Asn Thr Arg Tyr Phe Gly Thr  
 324 210 215 220

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327 Tyr Thr Gly Gly Glu Asn Val Pro Pro Val Leu His Val Thr Asn Thr  
328 225 230 235 240  
331 Ala Thr Thr Val Leu Leu Asp Glu Gln Gly Val Gly Pro Leu Cys Lys  
332 245 250 255  
335 Ala Asp Ser Leu Tyr Val Ser Ala Ala Asp Ile Cys Gly Leu Phe Thr  
336 260 265 270  
339 Asn Ser Ser Gly Thr Gln Gln Trp Arg Gly Leu Ala Arg Tyr Phe Lys  
340 275 280 285  
343 Ile Arg Leu Arg Lys Arg Ser Val Lys Asn Pro Tyr Pro Ile Ser Phe  
344 290 295 300  
347 Leu Leu Ser Asp Leu Ile Asn Arg Arg Thr Gln Lys Val Asp Gly Gln  
348 305 310 315 320  
351 Pro Met Tyr Gly Met Glu Ser Gln Val Glu Glu Val Arg Val Phe Asp  
352 325 330 335  
355 Gly Thr Glu Gln Leu Pro Gly Asp Pro Asp Met Ile Arg Tyr Ile Asp  
356 340 345 350  
359 Arg Gln Gly Gln Leu Gln Thr Lys Met Val  
360 355 360  
363 <210> SEQ ID NO: 13  
364 <211> LENGTH: 130  
365 <212> TYPE: PRT  
366 <213> ORGANISM: Bacteriophage fr  
368 <400> SEQUENCE: 13  
370 Met Ala Ser Asn Phe Glu Glu Phe Val Leu Val Asn Gly Gly Thr  
371 1 5 10 15  
374 Gly Asp Val Lys Val Ala Pro Ser Asn Phe Ala Asn Gly Val Ala Glu  
375 20 25 30  
378 Trp Ile Ser Ser Asn Ser Arg Ser Gln Ala Tyr Lys Val Thr Cys Ser  
379 35 40 45  
382 Val Arg Gln Ser Ser Ala Asn Asn Arg Lys Tyr Thr Val Lys Val Glu  
383 50 55 60  
386 Val Pro Lys Val Ala Thr Gln Val Gln Gly Gly Val Glu Leu Pro Val  
387 65 70 75 80  
390 Ala Ala Trp Arg Ser Tyr Met Asn Met Glu Leu Thr Ile Pro Val Phe  
391 85 90 95  
394 Ala Thr Asn Asp Asp Cys Ala Leu Ile Val Lys Ala Leu Gln Gly Thr  
395 100 105 110  
398 Phe Lys Thr Gly Asn Pro Ile Ala Thr Ala Ile Ala Asn Ser Gly  
399 115 120 125  
402 Ile Tyr  
403 130  
406 <210> SEQ ID NO: 14  
407 <211> LENGTH: 130  
408 <212> TYPE: PRT  
409 <213> ORGANISM: Bacteriophage GA  
411 <400> SEQUENCE: 14  
413 Met Ala Thr Leu Arg Ser Phe Val Leu Val Asn Gly Gly Thr Gly  
414 1 5 10 15  
417 Asn Val Thr Val Val Pro Val Ser Asn Ala Asn Gly Val Ala Glu Trp

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/550,518

DATE: 10/05/2005

TIME: 16:22:41

Input Set : A:\sequence listing ascii.txt

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L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date